

# FIRE: HUMAN AND EQUIPMENT RESOURCES AT YOUR SERVICE



FIRE TESTING CENTER • Laboratory approved by the French Ministry of the Interior

## GENERAL REQUIREMENTS MET

(standard EN 1363-1)

- ▶ Units stored at 50% RH and 23°C.
- ▶ Units conditioned after manufacture until weight has stabilized.
- ▶ COFRAC Testing accreditation n° 1-0001 (scope available at [www.cofrac.fr](http://www.cofrac.fr)).

## ALL POSSIBLE FIRE SCENARIOS

- ▶ ISO 834 standard fire curve.
- ▶ HCM modified hydrocarbon curve.
- ▶ Rijkswaterstaat curve (RWS).
- ▶ Eureka curve.

## EXCEPTIONAL RESOURCES

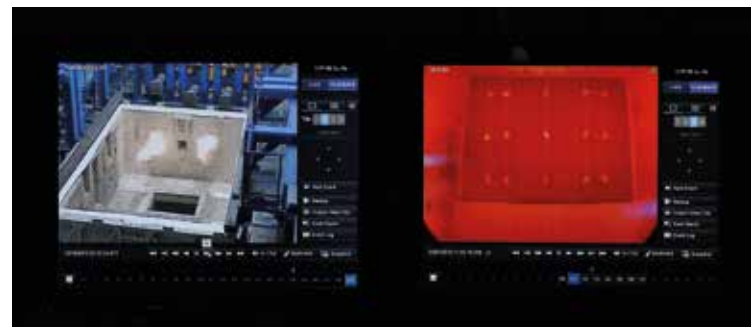
Promethee: "probably the best example of a structural testing facility which is currently available for large-scale non-standard structural fire testing". [*National Fire Protection Association U.S.A., NIST Publication, January 2012*].



## FIRE UNDER REAL-LIFE CONDITIONS

- ▶ Test rig fully representative of works.
- ▶ Support for managing boundary conditions.
- ▶ Stiffness-matrix control.
- ▶ Real-time calculation of forces to be applied.

## CUTTING-EDGE SKILLS AND METROLOGY



### Data for appraising and deciding advisedly

- ▶ High-temperature borescope inspection during testing.
- ▶ 10 HD cameras with real-time display and recording (remote display possible).
- ▶ 3D analysis of surface condition.



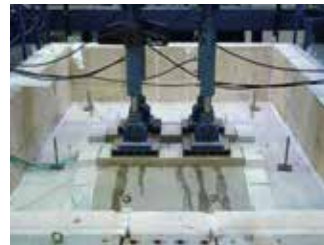
# EXAMPLES

## TESTING FOR COMPLEX STRUCTURES TUNNEL LINING SEGMENTS

- ▶ Confinement representative of real life.
- ▶ Customized support for management of boundary conditions.



- ▶ Life-size units tested, without cropping edges or damaging reinforcement.
- ▶ Horizontal displacement of segment managed.



## LOADBEARING EXHAUST DUCTS (BATEG / VEOLIA HEADQUARTERS)

- ▶ Testing of loadbearing exhaust ducts on air-conveyance test rig.
- ▶ Vertical load 300 kN.
- ▶ Facility for testing fire resistance of very large air-conveyance systems (throughput of up to 100,000 m<sup>3</sup>/h, internal sectional area of up to 4 m x 3 m). Unique in Europe.

